

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,420	11/04/2003	Carl E. Fonville	GP-303229	5804
75	90 03/29/2006		EXAM	INER
LESLIE C. HODGES			OMGBA, ESSAMA	
General Motors	Corporation			
Legal Staff, Mail Code 482-C23-B21			ART UNIT	PAPER NUMBER
P.O. Box 300			3726	
Detroit, MI 48	3265-3000			_

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
	10/700,420	FONVILLE, CARL E.
Office Action Summary	Examiner	Art Unit
	Essama Omgba	3726
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with the o	correspondence address
A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period w - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	ATE OF THIS COMMUNICATION 16(a). In no event, however, may a reply be ting 11 apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	N. nely filed the mailing date of this communication. ED (35 U.S.C. § 133).
Status		
1) ☐ Responsive to communication(s) filed on 13 Ja 2a) ☐ This action is FINAL. 2b) ☐ This 3) ☐ Since this application is in condition for alloward closed in accordance with the practice under E	action is non-final. ace except for formal matters, pr	
Disposition of Claims		
4) ☐ Claim(s) 1-3 and 5-11 is/are pending in the approach 4a) Of the above claim(s) is/are withdraw 5) ☐ Claim(s) 7-11 is/are allowed. 6) ☐ Claim(s) 1-3,5 and 6 is/are rejected. 7) ☐ Claim(s) is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	vn from consideration.	
Application Papers		
9) The specification is objected to by the Examiner 10) The drawing(s) filed on is/are: a) access Applicant may not request that any objection to the of Replacement drawing sheet(s) including the correction of the original than the original than the correction of the original than the origina	epted or b) objected to by the drawing(s) be held in abeyance. Se on is required if the drawing(s) is ob	e 37 CFR 1.85(a). ejected to. See 37 CFR 1.121(d).
Priority under 35 U.S.C. § 119		
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list of the priority documents	s have been received. s have been received in Applicat ity documents have been receive (PCT Rule 17.2(a)).	ion No ed in this National Stage
Attachment(s)	_	
1) Notice of References Cited (PTO-892) 2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date	4) Interview Summary Paper No(s)/Mail D 5) Notice of Informal F 6) Other:	

Application/Control Number: 10/700,420

Art Unit: 3726

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States
- 2. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Hermanus (US Patent 2,989,327).

Hermanus discloses an expandable ring (col. 1, lines 16—18) comprising an annular body having first and second ends formed by axially spaced inner and outer coaxial sloped annular surfaces of revolution centered on an axis and extending between inner and outer peripheries (fig. 1), the body formed of a material that is solid at normal room temperature but is compressible when subjected to end loads beyond a prescribed limit (col. 1, lines 61-65). Applicant should note that the ring of Hermanus is made of thermoplastic material (polyamide, col. 1, lines 34-47) that would soften at engine operating temperatures. Applicant should also note that the preamble has not been given any patentable weight since it recites an intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See

Art Unit: 3726

In re Casey, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and In re Otto, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In the instant case, the expandable ring disclosed by Hermanus is capable of being used for centering opposed annular surfaces of a transmission torque converter and an engine crankshaft, see for example col. 2, lines 14-21.

Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 3, 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hermanus.

Hermanus discloses an expandable ring (col. 1, lines 16—18) comprising an annular body having first and second ends formed by axially spaced inner and outer coaxial sloped annular surfaces of revolution centered on an axis and extending between inner and outer peripheries (fig. 1), the body formed of a material that is solid at normal room temperature but is compressible when subjected to end loads beyond a prescribed limit (col. 1, lines 61-65). Although Hermanus does not disclose the ring having first and second ends formed by axially spaced inner and outer coaxial conical surfaces extending between inner and outer peripheries, however it would have been obvious to one of ordinary skill in the art at the time the invention was made that having

Application/Control Number: 10/700,420

Art Unit: 3726

the first and second ends formed by axially spaced inner and outer coaxial conical surfaces extending between inner and outer peripheries is an obvious matter of design choice wherein no stated problem is solved or unexpected results obtained in having the first and second ends formed by axially spaced inner and outer coaxial conical surfaces extending between inner and outer peripheries versus the sloped ends taught by Hermanus as long as the ends are made to mate with their respective contact surfaces from the connected members. Furthermore it is within the general knowledge of one of ordinary skill in the art to appropriately shape mating cooperating contact surfaces. Applicant should note that the ring of Hermanus is made of thermoplastic material (polyamide, col. 1, lines 34-47) that would soften at engine operating temperatures Also for the recitation of the thermoplastic being a high-density polyethylene in claim 6, Hermanus discloses that the ring is made from high-strength elastic plastic such as polyamides with a modulus of elasticity of at least 10,000 kg/sg.cm (~142,000 psi) which is about the modulus of elasticity of HDPE which generally ranges from 120,000 to 200,000 psi. Therefore even though Hermanus does not specifically disclose the high-strength plastic being a high-density polyethylene, however it would have been obvious to one of ordinary skill in the art at the time the invention was made that the polyamides taught by Hermanus are structurally equivalent to the claimed high-density polyethylene. Applicant should note that the preamble has not been given any patentable weight since it recites an intended use. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed

Art Unit: 3726

invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In the instant case, the expandable ring disclosed by Hermanus is capable of being used for centering opposed annular surfaces of a transmission torque converter and an engine crankshaft, see for example col. 2, lines 14-21.

Allowable Subject Matter

5. Claims 7-11 are allowed.

Response to Arguments

6. Applicant's arguments filed January 13, 2006 have been fully considered but they are not persuasive.

In response to Applicant's argument that Hermanus does not teach an expandable alignment ring having an annular body formed of a material solid at room temperature but softens at engine operating temperatures, the examiner respectfully disagrees. As outlined in the above rejections, the expandable ring disclosed by Hermanus is made of thermoplastic material structurally similar to the one disclosed by Applicant and therefore would soften at engine operating temperatures. The polyamides disclosed by Hermanus are structurally equivalent to the broadly claimed high-density

Application/Control Number: 10/700,420 Page 6

Art Unit: 3726

polyethylene. In view of the above remarks, the examiner maintains that the rejections of the claims as outlined above is proper.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (571) 272-4532. The examiner can normally be reached on M-F 9-6:30, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, George Nguyen can be reached on (571) 272-4491. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Page 7

Application/Control Number: 10/700,420

Art Unit: 3726

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Essama Omgba Primary Examiner Art Unit 3726

eo March 25, 2006